

5 What is claimed is:

1. A method comprising:

accepting query data from one or more spoken instance of a query;

processing the query data including determining a representation of the query  
that defines multiple sequences of subword units each representing the  
query; and

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locating putative instances of the query in input data from an audio signal.

2. The method of claim 1 wherein processing the query data includes applying a  
speech recognition algorithm to the query data.

3. The method of claim 1 wherein the subword units include linguistic units.

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4. The method of claim 2 wherein locating the putative instances includes  
applying a word spotting algorithm configured using the determined representation of  
the query.

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5. The method of claim 4 further comprising selecting parameter values of the  
speech recognition algorithm for application to the query data according to  
characteristics of the word spotting algorithm.

6. The method of claim 5 wherein the selecting of the parameter values of the  
speech recognition algorithm includes optimizing said parameters according to an  
accuracy of the word spotting algorithm.

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7. The method of claim 5 wherein the selecting of the parameter values of the  
speech recognition algorithm includes selecting values for parameters including one  
or more of an insertion factor, a recognition search beam width, a recognition  
grammar factor, and a number of recognition hypotheses.

8. The method of any of claims 1 through 7 wherein determining the  
representation of the query includes determining a network of the subword units.

- 5     9.     The method of claim 8 wherein the multiple sequences of subword units correspond to different paths through the network.
10.     The method of any of claims 1 through 7 wherein determining the representation of the query includes determining an n-best list of recognition results.
- 10     11.     The method of claim 10 wherein each of the multiple sequences of subword units corresponds to a different one in the n-best list of recognition results.
12.     The method of any of claims 1 through 7 wherein accepting the query data includes accepting audio data representing the spoken utterances of the query spoken by a user, and processing the audio data to form the query data.
- 15     13.     The method of any of claims 1 through 7 wherein accepting the query data includes accepting selection by a user of portions of stored data from a previously accepted audio signal, and processing the portions of the stored data to form the query data.
- 20     14.     The method of claim 13 further comprising, prior to accepting the selection by the user, processing the previously accepted audio signal according to a first speech recognition algorithm to produce the stored data.
15.     The method of claim 14 wherein the first speech recognition algorithm produces data related to presence of the subword units at different times in the audio signal.
- 25     16.     The method of claim 14 wherein processing the query data includes applying a second speech recognition algorithm to the query data.
17.     Software stored on a computer-readable medium comprising instructions for causing a processing system to:
- accept query data from one or more spoken instance of a query;

- 5           process the query data including determining a representation of the query that  
              defines multiple sequences of subword units each representing the  
              query; and  
              locate putative instances of the query in input data from an audio signal.
18.       A system comprising:
- 10           a speech recognizer for processing query data from one or more spoken  
              instances of a query;
- a data storage for receiving a data representation of the query from the speech  
              recognizer, the data representation defining multiple sequences of  
              subword units representing the query;
- 15           a word spotter configured to use the data representation of the query to locate  
              putative instances of the query in input data from an audio signal.